REMARKS

The claims are claims 1 to 15.

Claims 1, 8, 9, 11 and 15 are amended. Claims 1 and 8 are amended to distinguish over the cited reference. Claims 9 and 11 have been amended to better recite a method limitation rather than an apparatus limitation. Claim 15 is amended to correct a grammar error.

Claims 1 to 13 were rejected under 35 U.S.C. 102(e) as anticipated by Robertson et al U.S. Patent No. 6,496,740.

Claims 1 and 8 recite subject matter not anticipated by Robinson et al. Claim 1 recites "wherein at least one of said plurality of ports consists of an active data port connected to said request queue controller capable of supplying a data transfer request to said request queue controller specifying a data source, a data destination and a data quantity to be transferred." Claim 8 similarly recites "wherein at least one of said plurality of ports is an active data port; and generating a data transfer request at an active data port specifying a data source, a data destination and a data quantity to be transferred." Earlier recitations in these claims required the ports to be connected to the hub for data transfer. As amended, claims 1 and 8 each recite transfer requestor nodes for generating the data transfer requests. Thus claims 1 and 8 makes a clear distinction between transfer requestor nodes and ports. This application illustrates in Figure 4 transfer requestor nodes 116 connected to the chain transfer request bus nodes 117 and hence to request queue controller 101 and ports 112, 112, 114 and 411. Port 411 is the claimed active port. Figure 4 illustrates a connection from port 411 to special transfer request node 160 which is also connected to the chain of transfer request bus nodes 117 to transmit a data transfer request to request queue controller 101.

Robertson et al fails to disclose this subject matter. Figure 5 of Robertson et al illustrates ports 521 including port interface units 530, 531, 532 and 533. These are illustrated as connected to TCHP Hub 520, which is illustrated as including a queue manager. Figure 5 of Robertson et al also illustrates processor-cache (IMP nodes) 570, 571 and 572 which are illustrated as connected to transfer request feed mechanism 545. Figure 5 illustrates that transfer request feed mechanism 545 supplies requests to the queue manager part of TCHP hub 520. Robertson et al always discloses that requests come from processor-cache (IMP nodes) 570, 571 and 572 and never discloses that requests come from ports 521 or external port interface units 530, 531, 532 and 533. Thus Robertson et al fails to teach the active port recited in claims 1 and 8.

The FINAL REJECTION states at page 3, lines 7 to 9 that this subject matter is anticipated by Robinson et al at column 11, lines 9 to 26 and column 12, lines 43 to 45. The Applicants respectfully submit that Robinson et al fails to teach a data port connected to the hub for data transfer and connected to the request queue controller for specifying data to be transferred. Robinson et al states at column 11, lines 9 to 28:

> "FIG. 5 shows from a higher level, the interconnection of the four main functional blocks, the first two of which, the TCHP hub 520 and the ports 521 (including all ports interface composed in FIG. 5 of 530, 531, 532, 533 and 560). The TCHP hub 520 and the ports 521 are an integral part of the TCHP. The other two units, the transfer request feed mechanism 545 and the data transfer bus DTB 555 are closely associated functional units, but not a part of the TCHP itself. FIG. 5 highlights the possible connection multiple data transfer bus DTB nodes and the possible connection of multiple transfer request nodes.
> "Address Generation
> "Address and word count are required outputs of each address unit and these outputs update the selected channel, given the size of the transfer to be performed. The complexity of address generation within the TCHP is increased by the need

to accommodate the following transfer options which are of two major types:

"1. Normal Linear transfers, and
"2. two dimensional (2-D) transfers."

This disclosure of Robinson et al includes ports 521 including external port interface units 530, 531, 532 and internal memory port master 560 illustrated in Figure 5. These are all connected to TCHP hub 520. Figure 5 also illustrates processor-cache (IMP nodes) 570, 571 and 572. These are all connected to data transfer bus 555 and transfer request feed mechanism 545. Figure 5 fails to illustrate any structure connected to both the TCHP hub 520 and the queue manager. Such a connection is required for the claimed active data port.

In contrast, claims 1 and 8 recite connection of the port to both the data transfer hub and to the request queue controller. This is illustrated in Figure 4 of this application. Active port HIU 411 is connected to TCHO hub 100 via TCHP ports (I/O subsystem) 110 and to request queue controller 101 via transfer request node 160 and the transfer request bus including nodes 117.

Column 12, lines 43 to 55 of Robinson et al teaches parts of the request queue manager in the form of a queue manager request bus master as illustrated in Figure 7. This structure corresponds to the request queue controller recited in claim 1 and the receiving, prioritizing and dispatching data transfer requests step recited in claim 8. This portion of Robinson et al includes no teaching regarding ports and no teaching that a port is connected to both the data transfer hub and the request queue manager as required by claims 1 and 8. The reference to Figure 8 of Robinson et al at column 12, lines 49 to 55 likewise fails to provide any teaching of a data port.

The FINAL REJECTION at page 5, lines 1 to 15 newly cites column 6, lines 10 to 40 of Robertson et al as anticipating claims

1 and 8. Robertson et al states at column 6, lines 21 to 24 (within the portion cited in the FINAL REJECTION):

> "The TCHP is basically a data transfer controller which has at its front end portion, a request queue controller 300 receiving, prioritizing, and dispatching data in the form of transfer request packets."

Figure 3 clearly illustrates input of TRANSFER REQUEST PACKETS to request queue controller 300. Robertson et al states at column 6, lines 34 to 40 (within the portion cited in the FINAL REJECTION):

> "Outputs from these pipelines are broadcast to M Ports (six shown in Figure 3 as 350 through 355), which are clocked either at the main processor clock frequency or at a lower external device clock frequency. Read data from one port, e.g. port 350, having a destination write address of port 353 is returned to the hub destination control pipeline through the data router unit 360."

This portion of Robertson et al discloses the type of signals between M-ports 350 to 355 and hub unit 310. These signals are addresses broadcast from source pipeline 330 and destination pipeline 340 and data transfer to and from data router unit 360. This portion of Robertson et al fails to disclose transmission of a transfer request packet from any of ports 350 to 355 to request queue controller 300. The Applicants respectfully submit that the language of claims 1 and 8 both require the transmission of a data transfer request from the active port to the request queue controller. Claims 1 and 8 are not anticipated by Robertson et al because Robertson et al fails to teach this limitation.

New claims 14 and 15 recite subject matter not anticipated by Robinson et al. Claim 14 recites "a special transfer request node connected to said upstream most node of said plurality of transfer request nodes and said active data port, said special transfer request node connecting said active data port to said request queue

controller via said plurality of transfer request nodes." Claim 15 recites "transferring data transfer requests from said active data port to said request queue controller via a special transfer request node connected to said upstream most transfer request node." This is illustrated in the application at Figure 4 which shows the connection of active port 411 to special transfer request node 160 at the upstream most end of the chain of transfer request nodes 117. Robertson et al teaches something like the plurality of transfer request nodes in the transfer request feed mechanism 545 illustrated in Figure 5. Figure 5 of Robertson et al fails to show any connection of a port to this transfer request feed mechanism 545. Thus, no teaching of Robinson et al anticipates this subject matter.

In addition, the FINAL ACTION includes no mention of claims 14 and 15. Without some indication of a rejection, the FINAL REJECTION fails to make a prima facia case that claims 14 and 15 are not allowable. Accordingly, claims 14 and 15 should be allowed.

The Applicants respectfully request entry and consideration of this amendment. Entry of this amendment is proper at this time because the amendment serves only to clarify subject matter previously recited. Thus no new search or reconsideration is required.

The Applicants respectfully submit that all the present claims are allowable for the reasons set forth above. Therefore early reconsideration and advance to issue are respectfully requested.

If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' attorney at the below listed telephone number and address to facilitate prosecution.

Texas Instruments Incorporated
P.O. Box 655474 M/S 3999
Dallas, Texas 75265
(972) 917-5290
Fax: (972) 917-4418

Respectfully submitted,

Robert D. Marshall, Jr.
Reg. No. 28,527